

Dr Dean David Petters

QUALIFICATIONS

- 2008** Registered as Chartered Psychologist by the British Psychological Society
- 2001-2006** University of Birmingham
PhD Cognitive Science (in Computer Science)
Supervisor: Professor Aaron Sloman
PhD title: **Designing Agents to Understand Infants**
- 2000-2001** University of Birmingham
M.Sc. Cognitive Science, (Distinction).
- 1999-2000** Nottingham University
Post-graduate Diploma in Psychology (2.1) which confers Graduate Basis for Registration in Psychology.
- 1994-1995** Oxford University
Post-graduate Certificate in Education in Science/Chemistry.
- 1991-1994** University of Birmingham
M.Phil. Inorganic Chemistry.
- 1988-1991** University of Birmingham
B.Sc. Chemistry (2.1).

MEMBERSHIP OF PROFESSIONAL SOCIETIES

Member of The Society for the Study of Artificial Intelligence and Simulation of Behaviour (AISB).

Member of the International Society for Research in Emotion (ISRE).

Graduate Member of the British Psychological Society, with Chartered Psychologist Status.

PUBLICATIONS

Journal articles and book chapters:

D. Petters and E. Waters, and F. Schönbrodt, (In Press) Measurement and Modeling: Complementary approaches to understanding the organization and underpinnings of attachment behavior. In *Measuring Attachment: Observational and Developmental Analysis of Behavior, Mental Representations, and Biological Processes*. In press with Guilford Publishers, NY.

D. Petters, E. Waters, and A. Sloman (2011). From Bowlby's Attachment Control System to

Requirements for Romantic Robots: Modelling Machines which can Love. *Emotion Researcher* 26, (2), 5-7

D. Petters, E. Waters, and F. Schönbrodt, (2010). Strange Carers: Robots as Attachment Figures and Aids to Parenting. *Interaction Studies: Social Behaviour and Communication in Biological and Artificial Systems*, 11:2, 246-252.

D. Petters, and E. Waters, (2009). Modeling, Simulating, and Simplifying Links Between Stress, Attachment, and Reproduction. *Behavioral and Brain Sciences*, 31, 1, 39-40

Invited presentations:

D. Petters (2011). Loss of Control Arising from Public Passions and Hidden Agendas
Invited Presentation at: *'From Animals to Robots and Back: reflections on hard problems in the study of cognition'*. September 2011, University of Birmingham.

M. Juttner, D. Petters, E. Wakui, I. Rentschler, and J. Davidoff (2008). The development of object representations into adolescence. *Presented at the Experimental Psychology Society Symposium* (July 2008, Liverpool).

Refereed conference papers:

M. Juttner, D. Petters, S. Kaur E. Wakui, and J. Davidoff, (2011) Trajectories of part-based and configural object recognition in adolescence. *Perception* 40, ECVF Abstract Supplement 72. (Presented at the 34th European Conference on Visual Perception, August 2011 Toulouse)

S. Kaur E. Wakui, J. Davidoff, D. Petters, and M. Juttner (2011) Trajectories of part-based and configural object recognition in adolescence. *Experimental Psychology Society meeting*, (University College, London).

E. Wakui, J. Davidoff, D. Petters, M. Juttner, and S. Kaur (2010). Trajectories of part-based and configural object recognition in adolescence. *Presented at the BPS Developmental Section Conference* (Goldsmiths College, London).

M. Juttner, E. Wakui, S. Kaur, D. Petters, and J. Davidoff, (2010), Analytic and holistic object representations in adolescence. *Perception* 39, ECVF Abstract Supplement 102. (Presented at the 33rd European Conference on Visual Perception, August 2010 Lausanne)

D. Petters and E. Waters (2010). AI, Attachment Theory, and Simulating Secure Base Behaviour: Dr. Bowlby meet the Reverend Bayes. *In Proceedings of the International Symposium on 'AI-Inspired Biology', AISB Convention 2010*, (pp. 51-58). University of Sussex, Brighton: AISB Press.

J. Davidoff, E. Wakui, D. Petters, S. Kaur, and M. Juttner (2010). Trajectories of part-based and configural object recognition in adolescence. *Presented at the BPS Cognitive Section Conference* (Cardiff).

E. Wakui, D. Petters, J. Davidoff, and M. Juttner, (2010), The development of part-based and

analytical object recognition in adolescence. *Journal of Vision* 10 (7): 957. (Presented at the *Vision Sciences Society (VSS) annual meeting, 2010 May Naples*).

E. Wakui, D. Petters, J. Davidoff, and M. Juttner, (2009), The development of part-based and configural object recognition in adolescence. *Presented at the Conference on Object Perception, Attention, and Memory (OPAM)*, (November 2009, Boston).

E. Wakui, D. Petters, J. Davidoff, and M. Juttner, (2009), The development of part-based and configural object recognition in adolescence. *Presented at the BPS Cognitive Section Conference*, (September 2009, Hatfield).

J. Davidoff, M. Juttner, D. Petters, and E. Wakui, (2009), Developmental trajectories for part- and configural-based Object Recognition. *Presented at the BPS Developmental Section Conference*, (September 2009, Nottingham).

M. Juttner, D. Petters, E. Wakui, and J. Davidoff, (2009), Object recognition in adolescence. In *ESCOPE 2009 - Proceedings of the 16th Conference of the European Society of Cognitive Psychology* (p 109) University of Krakow.

M. Juttner, D. Petters, E. Wakui, and J. Davidoff, (2009), The development of part-based and configural object recognition in adolescence. *Perception* 38, ECVF Abstract Supplement 165. (Presented at the *European Conference on Visual Perception*, August 2009, Regensburg).

D. Petters and E. Waters (2008). Epigenetic Development of Attachment Styles in Autonomous Agents. In *Proceedings of the Eighth International Conference on Epigenetic Robotics. Modeling Cognitive Development in Robotics Systems*, pages 153-154. Lund University Cognitive Studies, 139.

D. Petters (2007). Using Software Agents to Simulate Infant Secure-Base Behaviour. *Presented at the Society for Research in Child Development 2007 Biennial Meeting*.

D. Petters (2006). Implementing a Theory of Attachment: A Simulation of the Strange Situation with Autonomous Agents. In *Proc. of the Seventh International Conference on Cognitive Modelling*. (pp. 226-231). Trieste: Edizioni Goliardiche.

D. Petters (2005). Building agents to understand infant attachment behaviour. In *Proc. of the workshop: Modelling Natural Action Selection* (pp. 158-165). University of Sussex, Brighton: AISB Press.

D. Petters (2004). Simulating infant-carer relationship dynamics. In *Proc. AAAI spring symposium 2004: Architectures for modelling emotion – Cross-disciplinary foundations. Number ss-04-02 in AAAI Technical reports* (pp. 114-122). Menlo Park, CA: AAAI Press

D. Petters (1994). Synthesis of Functionalised Macrocyclic Cyclophane Ligands with Mixed Oxygen/Sulfur Donor Sets. *Presented at the UK Inorganic Chemistry Symposium*, University of Reading

Research Theses:

D. Petters (2006). Designing Agents to Understand Infants, *PhD thesis in Cognitive Science*, University of Birmingham.

D. Petters (2001). Flocking as adaptation in the sim-sheep environment. *M.Sc. Project Report in Cognitive Science*, School of Computer Science, University of Birmingham.

D. Petters (1996). Calixarene Derivatives as Templates in the Synthesis of Novel Metal Clusters. *M.Phil thesis in Inorganic Chemistry*, School of Chemistry, University of Birmingham.

Technical Reports:

D. Petters (2010). Attachment Theory as a Multi-disciplinary Programme: Retrospect and Prospect. Working Paper.

D. Petters (2009). Measurement and Modelling of Attachment Phenomena: Simplicity within Complexity. Working Paper

D. Petters (2009). A task taxonomy for activities to help typically developing and autistic children develop social competencies within Virtual Reality Environments. *Presented at Technical Development Workshop* (October 2009, Nottingham University)

D. Petters (2008). Attachment Theory and Artificial Cognitive Systems. Cognition Briefing for EUCognition.

D. Petters (2003). The Selection of Goals and Action in the Attachment System. *Thesis research report* (November 2003).

D. Petters (2003). Simulating Attachment Relationship Dynamics. *Thesis research report* (May 2003).

D. Petters (2002). Applying Developmental Constraints To Emotional Architectures. *Presented at the School of Computer Science PhD Research Exhibition* (March 2002, University of Birmingham).